



Attorney Docket No. 030913CON / NHN.5.US01
(formerly 1533.0520001)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Art Unit: 1615

In re application of:
Morris *et al.*

Serial No.: 09/933,709

Filed: August 22, 2001

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METHOD OF PRODUCING
VITAMIN POWDERS

Examiner: Gollamudi S. Kishore

DECLARATION OF CHARLES A. MORRIS

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

I, Charles A. Morris, declare and state:

1. I am an inventor or co-inventor of the invention described in one or more claims of U.S. Patent Application 09/933,709.
2. I am employed as Manager of Arkady Research with Archer Daniels Midland Company ("ADM"), in Olathe, Kansas, the assignee of record of the above-identified patent application.
3. I am the subject of the *Curriculum Vitae*, attached as **Exhibit A**. On the basis of the information and facts contained in these documents, I submit that I am an expert in the fields of food additives and preservatives, which includes being skilled in the arts of food processing, preservation, and extrusion technology.

4. I have reviewed U.S. Patent Application 09/933,709.

5. I am informed and believe that an Office Action was mailed on or about November 7, 2005, regarding U.S. Patent Application 09/933,709. I am informed and believe that claims 18-50 have been rejected under 35 U.S.C. § 112, first paragraph, because the specification is said to enable vitamin E compositions, but assertedly fails to reasonably provide enablement for generic "vitamin" compositions to show free-flowing characteristics with all compounds falling under "vitamins" and which are solids.

6. I performed, supervised or directed the tests described herein. The results indicate that one of ordinary skill in the art would be able to make and use the subject matter of the pending claims of U.S. Patent Application 09/933,709 without undue experimentation.

7. **Exhibit B** is a true and authentic copy of page 000146 of lab notebook 004455, which was created by Huey L. Willis under my direct supervision at the ADM laboratory facility in Arkady, Kansas. The data contained in **Exhibit B** was collected in the regular course of business as defined by Rule 803(6) of the Federal Rules of Evidence.

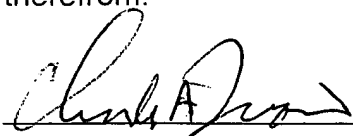
8. **Exhibit B** shows the addition of a stable dry form of vitamin D₃ oil (i.e., a fat soluble vitamin) into compositions of the present invention, comprising redried cornstarch and silica (identified as Sipernat 50, having an average particle size of 50 microns). As set forth in the attached lab results, and as declared herein, compositions of the present invention that comprise a stable dry form of vitamin D₃

oil exhibit free-flowing characteristics, similar to those vitamin E compositions set forth in the specification.

9. One of ordinary skill in the art, reading the specification of U.S. Patent Application 09/933,709 and the specific disclosure of vitamin E compositions would be enabled to practice the full scope of the claimed "vitamin" subject matter and form free-flowing vitamin compositions without undue experimentation.

10. Based upon my understanding of the fields of food additives and preservatives, which includes food processing, preservation, and extrusion technology, one of ordinary skill in the art would understand that various vitamin compounds could be added to or substituted for the tocopherols (e.g. vitamin E) compositions of the present invention to provide free-flowing characteristics, even though the selected vitamin compound may be solid, or have different structures, characteristics, or stabilities from vitamin E, without the need for unobvious contributions or for undue experimentation.

11. I further declare that all statements made herein are true and that all statements made on information and belief are believed to be true; and further that these statements are made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or document or any registration resulting therefrom.



March 5, 2006

CHARLES ALAN MORRIS
8408 W. 153rd Street
Overland Park, Kansas 66223
(913) 897-5420
E-mail cmorris14 @ ks.rr.com

Professional Experience:

July, 1992 to Present
Archer Daniels Midland
Olathe, Kansas

Manager of Arkady Research
October 2001

ADM Specialty Ingredients Division

Responsible for research for ADM in snack, mix, cereal and bakery areas. Direct R&D effort at Olathe location.

Direct work in laboratory on the development of new ingredients and applications. Provide direct support for customers in the use of ADM ingredients in the bakery, cereal, specialty mix and snack areas. Will support ADM products by providing technical information through presenting seminars and contributing information articles in professional food trade publications.

Technical Service Manager ADM Arkady

Ogilvie Mills Inc. was purchased July 1992 by Archer Daniels Midland. I am the Technical Service contact at ADM Arkady providing technical information for customers interested in wheat starch, wheat gluten, dry honey, dry molasses and enrichments. I direct application work that would use these products in bakery and non-bakery applications. After ADM purchased Ogilvie I worked with ADM's corn processing division in Decatur, I was doing technical service work with ADM's corn sweeteners plus Ogilvie products. Company expert on drum drying starch and sweeteners.

Principal accountabilities:

- Provide technical assistance to national and international customers through correspondence and field trips.
- Direct product application in the development of new products and customer applications.
- Write ingredient specifications for dry sweetener products and starch gluten products.
- Develop product specifications for dry honey and molasses products.
- Write Material Safety Data Sheets.
- Update and produce new product data sheets for food ingredients.
- Development of Quality Control procedures and methods for laboratory.
- Computer coordinator for ADM Arkady.

1985 to July, 1992
Ogilvie Mills, Inc.
Minneapolis, MN

Technical Service Manager

Ogilvie Mills, Inc. purchased the Food Ingredients Division of Henkel Corporation in 1985. I worked as Technical Service Manager providing technical service in support of company sales of starch, gluten, Dry honey, dry molasses, dry malt, pea fiber and specialty vitamin blends.

Principal accountabilities:

- Provide technical assistance to national and international customers through correspondence and field trips.
- Direct product application laboratory in the development of new products and customer applications.
- Write ingredient specifications for dry sweetener products.
- Develop product specifications for dry honey and molasses products.

- Write Material Safety Data Sheets.
- Update and produce new product data sheets for food ingredients.

1977 - 1985
Henkel Corporation
Minneapolis, MN

General Mills Chemicals, Inc. was purchased by Henkel Corporation. Continued to work in Process Development, food ingredients area. Worked at both production plant and pilot plant levels with wheat starch, gluten and dry honey and dry molasses. Major project was the start-up of new products on single and double roll drum dryer. Work on startup of starch gluten production plant.

1976 - 1977
General Mills Chemicals, Inc.
Minneapolis, MN

Developmental Technician - worked in laboratory and pilot plant on new chemical development. Major areas worked in were guar gums, lix reagents and distillation of sterols.

Patents

U.S. Patent 4,501,758 Honey Coated Nuts
U.S. Patent 4,738,865 Coating Adhesive (food grade)
U.S. Patent 4,800,097 Dried Nutmeat and Starch Food Product and Process (drum dryer)
U.S. Patent 4,919,956 Methods for Drying Honey and Molasses (extruder)
U.S. Patent 4,981,707 Dextrin-Based Food-Grade Adhesive Including Xanthan or Carboxymethylcellulose or Mixtures Thereof
U.S. Patent 6,303,167 Dry vitamin powder

Education

1975
University of Tampa
Tampa, Florida
Bachelor of Science, Major: Biology
 Minor: Chemistry

Professional Memberships

Institute of Food Technology Professional Member
American Association of Cereal Chemists
American Society of Bakery Engineers
American Oil Chemist Society

Purpose

To determine if a stable dry form of Vitamin D₃ oil can be manufactured, using the same technology used in to manufacture MT-30 LA.

	#1	#2	#3	#4
7 1/2 % Reclined corn starch	96.07	95.75	95.46	96.22
Vitamin D ₃ Oil, 4 million IU/g *	2.50	2.50	2.50	2.50
Sipernat 50	1.33	1.50	1.54	1.28
Mixed Tocopherols - MTS-70	0.10	0.25	0.50	—
Tenox-20 (20% TBHQ liquid)	—	—	—	—

* Zhejiang Garden Biochemical High-Tech Stock Co., LTD

Sample Preparation

The Vitamin D₃ Oil and ~~the~~ MTS-70 are mixed together and plated onto a mixture of one part of Sipernat 50 and one and one half parts of 7 1/2 % reclined starch using a mortar + pestle or waring blender. This mixture is then added to the remaining 7 1/2 % reclined starch in the formula and blended very well.

Storage

Each sample is sealed in a paper/poly/foil pouch and stored to up to 12 weeks at 100°F. Samples to be tested at 0, 2, 4, 6, 8, 10 and 12 weeks for vitamin D₃ activity.

000146 - 004455

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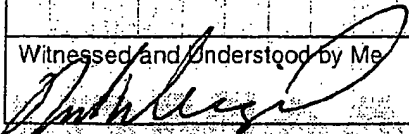
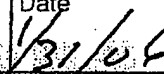
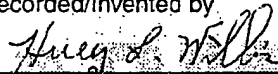
To Page No. _____

Witnessed and Understood by Me

Date

Recorded/Invented by

Date

1-25-06

ARCHER DANIELS MIDLAND

U.S. PATENT NOS. 5,764,933
5,171,040